CHEMICAL RUBBER CO. v. RAYMOND RUBBER CO. et al.

(Circuit Court of Appeals, Third Circuit. December 11, 1895.)

No. 19.

1. PATENTS—CONSTRUCTION OF CLAIMS.
The specifications of a patent for treating rubber waste, so as to recover the rubber therein by the use of sulphuric acid at a high temperature, stated that "diluted" sulphuric acid was useless for the purpose, and that the invention rested upon the discovery that the rubber in the waste would resist the action of "strong" sulphuric acid, and that the strength would depend upon the proportion of fiber in the waste; and the patentee stated that in practice he had used acid of the strength of 66° Baumé. In the claims the sulphuric acid to be used was designated as "strong," "of sufficient strength," etc. *Held*, that the patent should be construed as limited to the use of the strong undiluted sulphuric acid of commerce. 68 Fed. 570, affirmed.

2. SAME—INDEFINITE SPECIFICATIONS.
If it was really intended to cover by the patent the use of sulphuric acid diluted with water, the patent was void for not describing the patentee's particular solution with the certainty required by the patent laws.

3. SAME—PROCESS OF TREATING RUBBER WASTE.
The Mitchell patents, Nos. 300,720 and 249,970, for a method of recovering rubber from rubber waste by treating it with strong sulphuric acid at boiling heat, construed and limited, and *held* not infringed. 68 Fed. 570, affirmed.

Appeal from the Circuit Court of the United States for the District of New Jersey.

This was a bill by the Chemical Rubber Company against the Raymond Rubber Company and others for alleged infringement of certain patents relating to the art of treating rubber waste for the recovery of the rubber contained therein. The circuit court dismissed the bill, holding that, according to its construction of the patents, there was no infringement. 68 Fed. 570. Complainant appeals.

B. F. Lee, for appellant.
Francis T. Chambers, for appellee.

Before ACHESON, Circuit Judge, and BUTLER and GREEN, District Judges.

ACHESON, Circuit Judge. This appeal involves two letters patent, granted to N. Chapman Mitchell,—one numbered 249,970, dated November 21, 1881, issued upon an application filed May 19, 1881, and the other numbered 300,720, dated June 17, 1884, issued upon an application filed May 5, 1881. The subject-matter of these patents is the treatment of rubber scrap and worn rubber goods, to recover the rubber contained therein, so that it can be used again. The patent later in date of issue, it will be perceived, was first applied for. In that patent no mention is made of the employment of live steam in the practice of the described process; whereas the patent of 1881, issued upon the later application,

specifically claims such use of steam. There is no other substantial difference between the two inventions as described in the specifications of the patents as they were issued. On January 8, 1894, however, the complainant filed in the patent office a disclaimer to eliminate from patent No. 300,720 all reference to muriatic acid, which that patent, as issued, embraced equally with sulphuric acid.

The claims of patent No. 300,720 (giving effect to the disclaimer) are as follows:

"(1) As an improvement in the art of treating rubber waste for the recovery of the rubber therefrom, boiling said waste in sulphuric acid of a strength sufficient to eliminate and destroy the fibrous material with which the waste is combined, substantially as set forth.

"(2) The within-described process of eliminating woolen fiber from rubber waste containing the same, said mode consisting in boiling the waste in sulphuric acid of sufficient strength to eliminate said woolen fibers, as set forth.

"(3) As an improvement in the art of treating rubber waste for the recovery of rubber therefrom, the process herein described, said process consisting in first boiling the waste in strong sulphuric acid, and then washing the mass resulting from the acid treatment, all substantially as set forth."

The other patent, No. 249,970, has a single claim, namely:

"As an improvement in recovering rubber from rubber waste, wherein the rubber waste is boiled in strong sulphuric or muriatic acid, the process of bringing such acid into immediate contact with all portions of the mass, which consists in injecting steam into the strong acid in the tank containing the mass, whereby the steam penetrates every portion of the mass, and carries the acid with it, as specified."

The court below dismissed the bill of complaint, on the ground that, upon the proper construction of the claims, the defendants did not infringe either patent. The court was of the opinion that the sulphuric acid which the patentee intended should be used in the practice of his described processes, and which the patents call for, is the strong sulphuric acid of commerce, and that the use of sulphuric acid when very substantially diluted by adding water, according to the practice of the defendants, is not within any of the claims. We are all convinced that the court was right in thus construing the patents. We quite concur in the view that the claims must be read in connection with the respective specifications, and that, when so read, the defendants cannot be deemed to be infringers thereof. This conclusion will be amply vindicated by an analysis of the specifications.

In each of the specifications the patentee states that many attempts had been made to recover the rubber from rubber waste, and that among the plans proposed for the purpose was "the subjecting of the scraps or waste to the action of boiling water or steam, or to heated solutions of caustic alkali or diluted sulphuric acid; but all of these processes have been so far from practical that the waste is generally considered valueless."

He then proceeds to announce his discovery thus:

"I have ascertained that the rubber in the waste will effectually resist the action of strong sulphuric or muriatic acid, heated to a high temperature, but that the textile material will yield to the corrosive influence of the acid."

Then, describing his process, he states:

"In carrying out my invention, the acid is first deposited in the bottom of a tank or vat, into which the waste is then introduced, and the tank or vat closed. The acid is then heated by means of a steam coil, steam jacket, or in some other suitable manner; steam at a pressure of from fifty to seventy-five pounds being used, so as to impart a high degree of heat to the acid."

He further states:

"The strength of the acid and the quantity employed in respect to the quantity of material treated will depend upon the proportion of fiber and impurities in the waste. In practice I have used acid of the strength of 66° Baumé, employing for every one thousand pounds of waste from three hundred to five hundred pounds of sulphuric acid, or from four hundred to seven hundred and fifty pounds of muriatic acid."

He then adds that, when the rubber is combined with woolen fabric having long fibers of extra strength, he sometimes adds to the sulphuric or muriatic acid about one-twentieth part of its weight of fluoric acid. Now, it is here to be noted that fluoric acid is a much stronger acid than even sulphuric acid.

Down to this point the statements of the two specifications are alike. In patent No. 249,970, however, it is set forth that an essential feature of that invention is "the direct injection of live steam into the mass in the tank, as the steam penetrates every portion of the mass, and carries the acid with it." The patentee then adds:

"There can be no appreciable dilution of the acid by condensed steam in my apparatus, as the contents of the tank are maintained at a very high temperature, and the steam or vapor, as it rises above the mass in the tank, passes at once through the draft tube, D, so that the accumulation of water due to condensation of steam is very slight."

There is not to be found in either specification the remotest hint that the patentee proposed to dilute his acid with water. To the direct contrary, as we have seen, he states that the subjecting of rubber waste to the action of heated solutions of "diluted sulphuric acid" had proved not to be practical. He is careful to explain why the steam "which penetrates every portion of the mass, and carries the acid with it," does not, by condensation in the tank, appreciably dilute the acid. His particular description of the method of carrying out the invention, namely, depositing the acid in the bottom of the tank, introducing the waste therein, and then closing the tank, excludes the idea of adding water. He states that, in practice, he has used acid of the strength of 66° Baumé, and in one contingency, suggests more heroic treatment by the addition of fluoric acid.

Nor are the patentee's above-cited statements modified or affected by the two subsequent amendments which form the closing paragraph of the specification in No. 300,720. The occasion of the first of these amendments was the adverse citation by the examiner of the patent of 1863 to Haywood; whereupon the applicant by amendment declared that his invention was distinct from Haywood's described treatment, and that such "dilute acid" as he proposed could have no appreciable effect in destroying the fiber. The other amendment was the disclaimer of the subject-matter of the French patent to Faure, who describes a process of treating rubber scrap in which he

employs sulphuric acid of a strength from 50° to 58° Baumé, at a temperature of from 60° to 80°. This disclaimer deserves to be quoted at length:

"Neither do I claim the subjecting of rubber waste to the action of sulphuric acid of sufficient strength to destroy fibrous matter contained in the waste, that being described in the French patent of Faure, No. 91,665, April 3, 1871. Sulphuric acid, however, if employed at ordinary temperatures, or at any of the temperatures set forth or suggested by Faure, acts injuriously upon the rubber; and my invention, as hereinbefore stated, is based upon the discovery that the rubber in the waste will effectually resist the action of strong sulphuric or muriatic acid, heated to a high temperature."

Here is plainly set forth the supposed discovery of Mitchell,—the basis of his invention,—that strong sulphuric acid, if raised to a high temperature, will not injure the rubber. The patentable difference between Faure's process and that of Mitchell is declared to lie in Mitchell's use of a much higher temperature than any contemplated by Faure.

In enforcement of this view, Mr. Mitchell's solicitors, in answer to a citation by the examiner of Faure's patent as showing "want of novelty," on May 16, 1884, wrote to the commissioner of patents thus:

"The reference cited in the official letter of May 15th is referred to in applicant's specification, is especially disclaimed therein, and the difference between the subject-matter thereof and that of applicant's invention is clearly pointed out in the paragraph preceding the claim. The claim is limited to boiling the waste in acid, whereas the Faure patent describes the use of acid at comparatively low temperatures."

This letter, which closed the correspondence between the applicant's solicitors and the commissioner, is consistent with the views which these solicitors had previously urged upon the patent office, as ground for dissolving an interference between Mr. Mitchell and other parties, namely, that Mitchell's discovery was "that strong, undiluted commercial acid, with heat, can be used for the recovery of rubber." We do not refer to this action of Mr. Mitchell's solicitors as creating any matter of estoppel as against him, but as a significant fact. Confining ourselves, however, to what appears on the face of Mitchell's patents, their fair meaning, we think, is that the strong undiluted sulphuric acid of commerce is to be employed in the practice of his invention.

We have only to add that if Mr. Mitchell's invention, as is now claimed, really involves the use of diluted acid, and dilution with water is requisite to the operation, it was his duty to describe the solution or state the practical rule which accomplishes the desired result. His own specifications set forth that unsuccessful attempts had been made to subject rubber waste to the action of heated solutions of diluted sulphuric acid for the purpose of recovering the rubber. This made it all the more necessary that he should distinguish his particular solution from those already tried. Merely to describe the use of heated acid, without any information whatever as to the extent of the required dilution of the acid, was to add nothing to the stock of common knowledge. Mitchell's invention, it will be observed, rested upon an original discovery, and he was bound to disclose fully to the public, in and by his patents, his modus operandi. Upon this

point the provisions of section 4888 of the Revised Statutes are imperative.

In Wood v. Underhill, 5 How. 1, 5, the court said:

"But when the specification of a new composition of matter gives only the names of the substances which are to be mixed together, without stating any relative proportion, undoubtedly it would be the duty of the court to declare the patent to be void. And the same rule would prevail where it was apparent that the proportions were stated ambiguously and vaguely."

In Tyler v. Boston, 7 Wall. 327, 330, speaking of a discovery of a new substance by means of chemical combinations of known materials, the court declared:

"Where a patent is claimed for such a discovery, it should state the component parts of the new manufacture claimed, with clearness and precision, and not leave the person attempting to use the discovery to find it out 'by experiment.' The law requires the applicant for a patent right to deliver a written description of the manner and process of making and compounding his new-discovered compound. The art is new; and therefore persons cannot be presumed to be skilled in it, or to anticipate the results of chemical combinations of elements not in daily use."

In the recent case of Consolidated Electric Light Co. v. McKeesport Light Co., 73 O. G. 1289, 1291, 16 Sup. Ct. 75, the supreme court, after citing section 4888, Rev. St., said:

"The object of this is to apprise the public of what the patentee claims as his own, the courts of what they are called upon to construe, and competing manufacturers and dealers of exactly what they are bound to avoid. Grant v. Raymond, 6 Pet. 218, 247. If the description be so vague and uncertain that no one can tell, except by independent experiments, how to construct the patented device, the patent is void."

Under these authorities, it is plain that, upon the appellant's theory of Mr. Mitchell's inventions, his patents are void for lack of compliance with the statutory requirements with respect to the description of the manner and process of using his discovery.

The decree of the circuit court is affirmed.

REMINDER LOCK CO. et al. v. ADLER et al.

(Circuit Court, S. D. New York. December 23, 1895.)

PATENTS—CONSTRUCTION OF CLAIMS—VALVE LOCKS.

The Stiner patent, No. 413,794, for an improvement in valve locks, whereby the performance of one act (such as turning off the water in a building at night) is insured by making it impossible to perform another act (such as locking the front door of the building) until the water is turned off, covers an invention sufficiently meritorious to warrant a liberal construction of the claims, and the application of the doctrine of equivalents. *Held*, therefore, that the patent was infringed by a mechanism which, though different in appearance, was composed of parts which, in function and operation, were the counterparts of the elements of the first claim.

This was a bill in equity by the Reminder Lock Company and others against Marcus Adler and others for infringement of a patent relating to valve locks.